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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,277	12/31/2003	Greg R. Black	CS90099RL	2708
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MOTOROLA INC 600 NORTH US HIGHWAY 45 ROOM AS437 LIBERTYVILLE, IL 60048-5343			EXAMINER WEST, LEWIS G	
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/750,277

Applicant(s)

BLACK ET AL.

Examiner

Lewis G. West

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 12-28 is/are rejected.
- 7) ☒ Claim(s) 10 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-9, 12-16, 18, 20-21 and 23-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Gallagher (US 2004/0192211).

Regarding claim 1, Gallagher discloses a method in a communication system operating in a licensed radio frequency band and an unlicensed radio frequency band comprising: exchanging traffic information between a base station and a mobile station on at least one radio channel in the unlicensed radio frequency band; and exchanging control information that is associated with the traffic information, in the licensed radio frequency band. (0007-0008; 0033-0035; 0094-0095)

Regarding claim 2, Gallagher discloses the method according to claim 1, wherein exchanging traffic information to further comprises exchanging traffic information on a traffic channel in the unlicensed radio frequency band. (0007-0008; 0033-0035; 0094-0095)

Regarding claim 3, Gallagher discloses the method according to claim 2, wherein the traffic channel includes a plurality of frequencies of a frequency hopping pattern. (0040, Bluetooth operates using frequency hopping)

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Regarding claim 4, Gallagher discloses the method according to claim 2, wherein the traffic channel is a code division multiple access channel. (0049)

Regarding claim 5, Gallagher discloses the method according to claim 2, wherein the traffic channel is a wideband code division multiple access channel. (0049)

Regarding claim 6, Gallagher discloses the method according to claim 2, wherein the control information that is associated with the traffic information is exchanged on a dedicated channel in the licensed radio frequency band. (0094-0095)

Regarding claim 7, Gallagher discloses the method according to claim 6, wherein the dedicated channel in the licensed radio frequency band includes a stand alone dedicated control channel and a slow associated control channel. [0093-0094]

Regarding claim 8, Gallagher discloses the method according to claim 2, wherein a channel in the licensed radio frequency band includes a slow associated control channel and an on-demand fast associated control channel.[0093-0094, both these are part of GSM]

Regarding claim 9, Gallagher discloses the method according to claim 8, wherein the slow associated control channel is dedicated to a first mobile station of a plurality of mobile stations, and wherein the on-demand fast associated control channel is shared between the plurality of mobile stations. [This is standard to GSM, SACCH is by definition dedicated and FACCH is by definition not]

Regarding claim 12, Gallagher discloses The method according to claim 1, wherein the control information is exchanged on a first control channel in the licensed radio frequency band, the first control channel including a second control channel that is dedicated to a first mobile

station of a plurality of mobile stations and a third control channel that is shared between the plurality of mobile stations. [0093-0095]

Regarding claim 13, Gallagher discloses The method of claim 1, further comprising transmitting traffic channel conditions of at least one traffic channel in the unlicensed radio frequency band over an uplink control channel in the licensed radio frequency band. [108]

Regarding claim 14, Gallagher discloses The method according to claim 1, further comprising transmitting control channel conditions of at least one control channel in the licensed radio frequency band over a control channel in the licensed radio frequency band. [0108]

Regarding claim 15, Gallagher discloses The method according to claim 13, transmitting control channel conditions of at least one control channel in the licensed radio frequency band over a control channel in the licensed radio frequency band. [0108]

Regarding claim 16, Gallagher discloses The method according to claim 13, further comprising receiving control information over a downlink control channel, wherein the control information is related to the traffic information in the unlicensed radio frequency band. [0108]

Regarding claim 18, Gallagher discloses the method according to claim 1, wherein the control information exchanged over the licensed radio frequency band is handoff information. [0093-0095]

Regarding claim 20, the method according to claim 1, wherein the control information exchanged over the licensed radio frequency band is a neighbor list. [0093-0095]

Regarding claim 21, the method according to claim 1, wherein the control information exchanged over the licensed radio frequency band is a neighbor report. [0093-0095]

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Regarding claim 23, the method according to claim 1, wherein the control information exchanged over the licensed radio frequency band is a timing control message. [0049, TDMA]

Regarding claim 24, the method according to claim 7, wherein portions of the dedicated control channel are used for traffic when control information is not being sent. [0116]

Regarding claim 25, a wireless communication device operating in a licensed radio frequency band and simultaneously in an unlicensed radio frequency band comprising: a message scheduling module, that schedules traffic information to be sent in the unlicensed radio frequency band and that schedules control information which is associated with the traffic information to be sent in the licensed radio frequency band; and a transmitter that transmits traffic information over a first channel in the unlicensed radio frequency band, and transmits control information associated with the traffic information over the second channel in the licensed radio frequency band. (0007-0008; 0033-0035; 0094-0095)

Regarding claim 26, a method in a base station operative in a licensed radio frequency band and an unlicensed radio frequency band, said method of comprising: transmitting traffic information from a base station on at least one radio channel in the unlicensed radio frequency band; and transmitting control information that is associated with the traffic information, in the licensed radio frequency band. (0007-0008; 0033-0035; 0094-0095)

Regarding claim 27, the method according to claim 26, further comprising: receiving traffic information from a mobile station on at least one radio channel in the unlicensed radio frequency band; and receiving control information that is associated with the traffic information, in the licensed radio frequency band. (0007-0008; 0033-0035; 0094-0095)

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Regarding claim 28, a method in a mobile station operative in a licensed radio frequency band and an unlicensed radio frequency band, said method comprising: receiving traffic information from a base station on at least one radio channel in the unlicensed radio frequency band; and receiving control information that is associated with the traffic information, in the licensed radio frequency band. (0007-0008; 0033-0035; 0094-0095)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gallagher (US 2004/0192211).

Regarding claim 17, Gallagher discloses the method according to claim 3, including sending necessary control information which includes Bluetooth, a frequency hopping protocol. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to further comprising transmitting a frequency hopping pattern of all mobile stations communicating with the communication system on a control channel in the licensed radio frequency band in order to include all necessary information for the specified protocol

Claims 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gallagher (US 2004/0192211) in view of Examiner's Official Notice.

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Regarding claim 19, Gallagher discloses the method according to claim 1, wherein the control information exchanged but does not include an "end call" message specifically.

However, Examiner takes official notice that signaling the end to a call would have been notoriously obvious to one of ordinary skill in the art at the time of the invention. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to send, over the licensed radio frequency band, an end call message in order to ensure the system is aware of all resources that have been freed from traffic.

Regarding claim 22, the method according to claim 1, but does not expressly disclose power control information, but does disclose that measurement report information is exchanged and also discloses CDMA. Examiner takes official notice that power control information is inherently necessary to the operation of a CDMA system. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention that in the control information exchanged over the licensed radio frequency band would a power control message because in a CDMA environment as in one embodiment of the reference, power control is how interference is controlled.

Allowable Subject Matter

Claims 10 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis G. West whose telephone number is 571-272-7859. The examiner can normally be reached on Monday-Friday 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lewis G. West
Primary Examiner
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